TOh280'65h6E660

FIG. 1

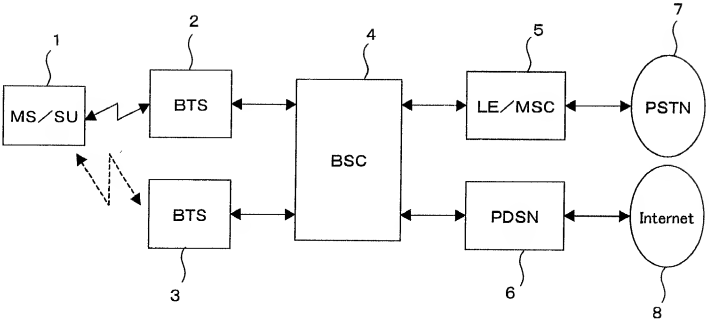


FIG. 2

Subscriber data table

Subscriber#1	Subscriber registration information
	Subscriber identification number
	Subscriber type
	Maximum allowable Sch rate
	Maximum allowable hand-off rate
Subscriber#2	Subscriber registration information
	Subscriber identification number
	Subscriber type
	Maximum allowable Sch rate
	Maximum allowable hand-off rate
• • •	• • •
Subscriber#n	Subscriber registration information
	Subscriber identification number
	Subscriber type
	Maximum allowable Sch rate
	Maximum allowable hand-off rate

10:30:55 09/06/2006

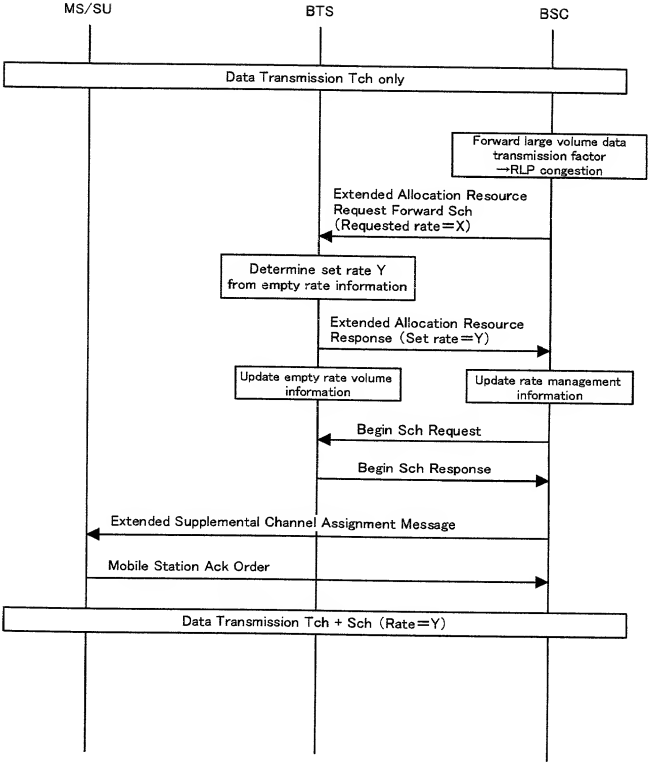
FIG. 3

Call number	Hand-off BTS information	Forward side rate information[kbps]	Reverse side rate information[kbps]
1	0	9.6	9.6
2	1	19.2	9.6
⋮ ~	⋮ ~	⋮ ~	⋮ ~
N	2	153.6	153.6

(Values in the table are exemplary)

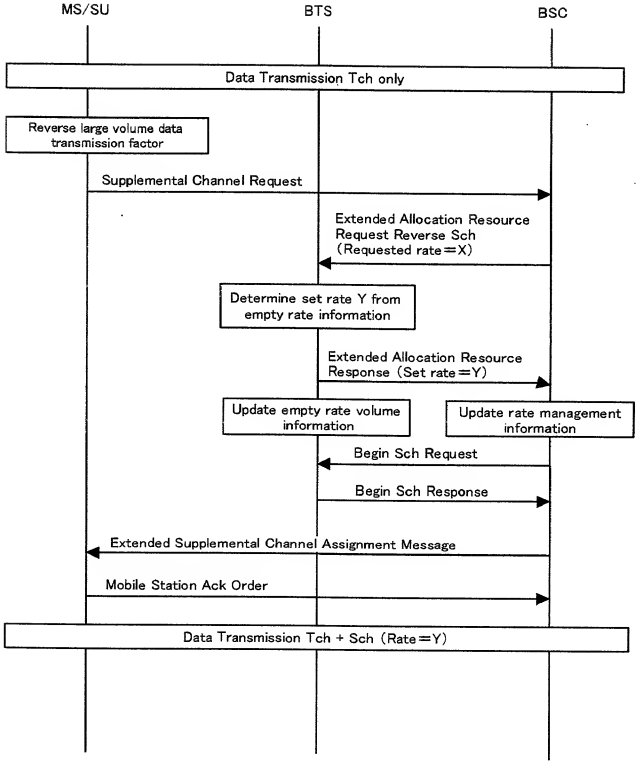
10h280-6sh6260

FIG. 4



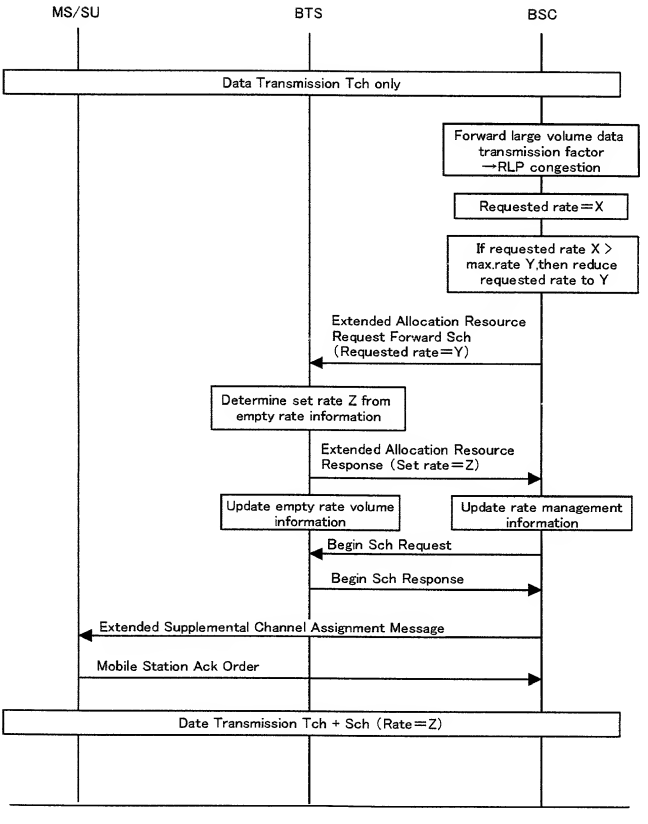
Sch Setting (Forward)

FIG. 5



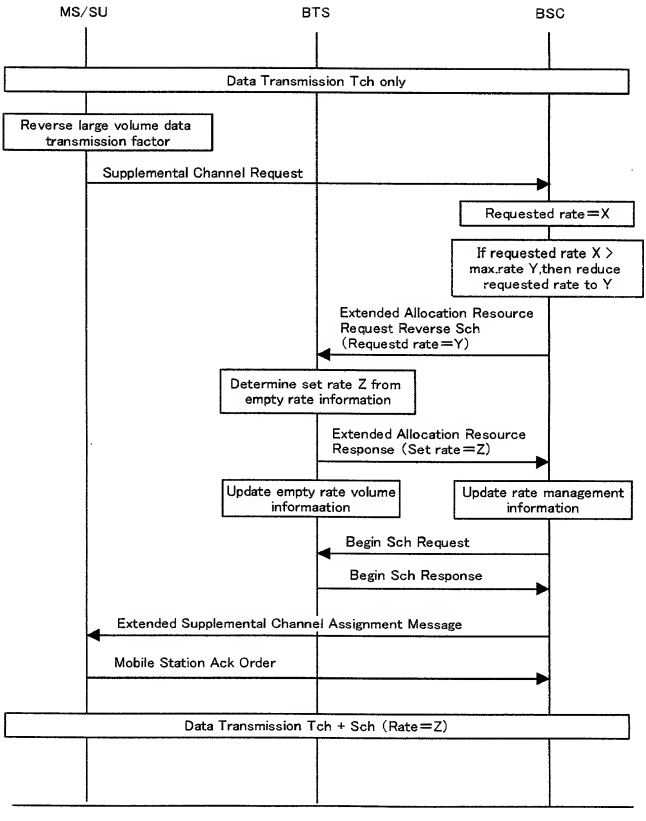
Sch Setting (Reverse)

FIG. 6



Sch Setting (Forward) When (Exceeding) Maximum Rate

FIG. 7



Sch Setting (Reverse) When Maximum Rate

FIG. 8

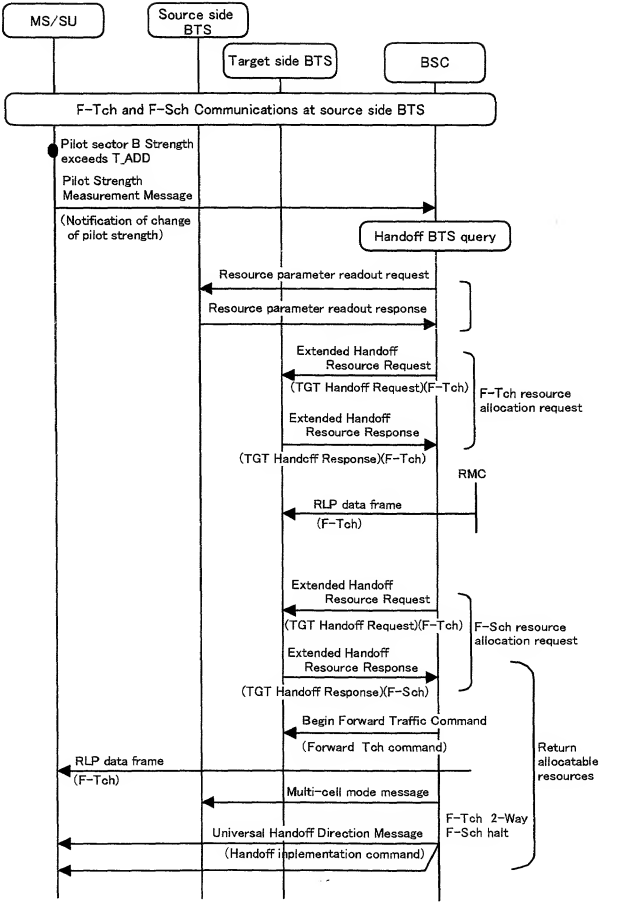

MS/SU
Source side BTS
Target side BTS
BSC
F-Tch and F-Sch Communications at source side BTS
Pilot sector B Strength exceeds T_ADD
Pilot Strength Measurement Message
(Notification of change of pilot strength)
Handoff BTS query
Resource parameter readout request
Resource parameter readout response
Extended Handoff Resource Request
(TGT Handoff Request)(F-Tch)
F-Tch resource allocation request
Extended Handoff Resource Response
(TGT Handoff Response)(F-Tch)
RMC
RLP data frame
(F-Tch)
Extended Handoff Resource Request
(TGT Handoff Request)(F-Tch)
F-Sch resource allocation request
Extended Handoff Resource Response
(TGT Handoff Response)(F-Sch)
Begin Forward Traffic Command
(Forward Tch command)
Return allocatable resources
RLP data frame
(F-Tch)
Multi-cell mode message
F-Tch 2-Way F-Sch halt
Universal Handoff Direction Message
(Handoff implementation command)

FIG. 9

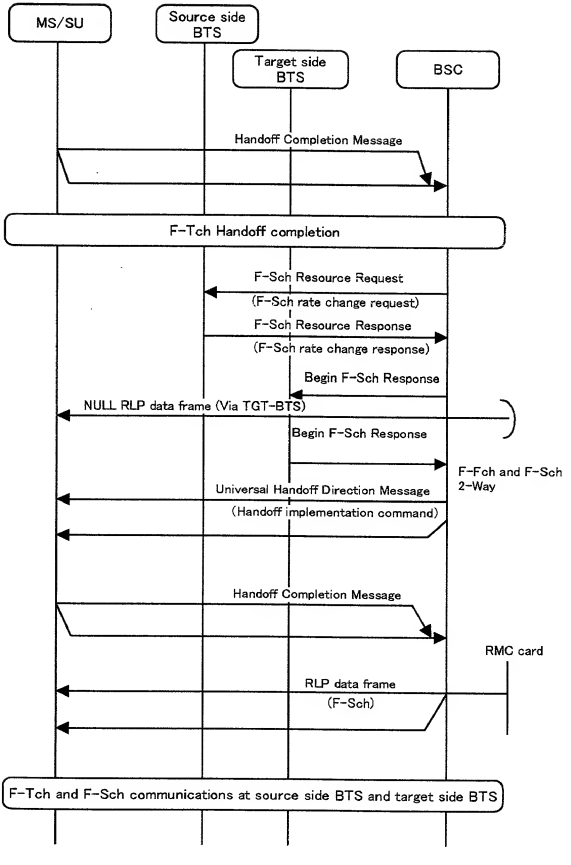

MS/SU
Source side BTS
Target side BTS
BSC
Handoff Completion Message
F-Tch Handoff completion
F-Sch Resource Request
(F-Sch rate change request)
F-Sch Resource Response
(F-Sch rate change response)
Begin F-Sch Response
NULL RLP data frame (Via TGT-BTS)
Begin F-Sch Response
F-Fch and F-Sch 2-Way
Universal Handoff Direction Message
(Handoff implementation command)
Handoff Completion Message
RMC card
RLP data frame
(F-Sch)
F-Tch and F-Sch communications at source side BTS and target side BTS

FIG. 10

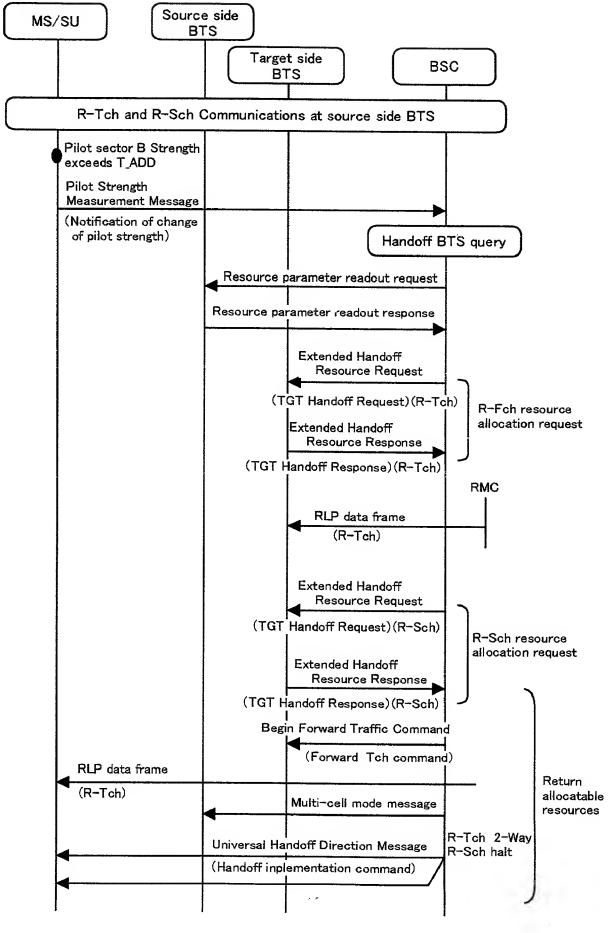

MS/SU
Source side BTS
Target side BTS
BSC
R-Tch and R-Sch Communications at source side BTS
Pilot sector B Strength exceeds T_ADD
Pilot Strength Measurement Message
(Notification of change of pilot strength)
Handoff BTS query
Resource parameter readout request
Resource parameter readout response
Extended Handoff Resource Request
(TGT Handoff Request)(R-Tch)
Extended Handoff Resource Response
(TGT Handoff Response)(R-Tch)
R-Fch resource allocation request
RMC
RLP data frame
(R-Tch)
Extended Handoff Resource Request
(TGT Handoff Request)(R-Sch)
Extended Handoff Resource Response
(TGT Handoff Response)(R-Sch)
R-Sch resource allocation request
Begin Forward Traffic Command
(Forward Tch command)
RLP data frame
(R-Tch)
Multi-cell mode message
Universal Handoff Direction Message
(Handoff implementation command)
R-Tch 2-Way
R-Sch halt
Return allocatable resources

FIG. 11

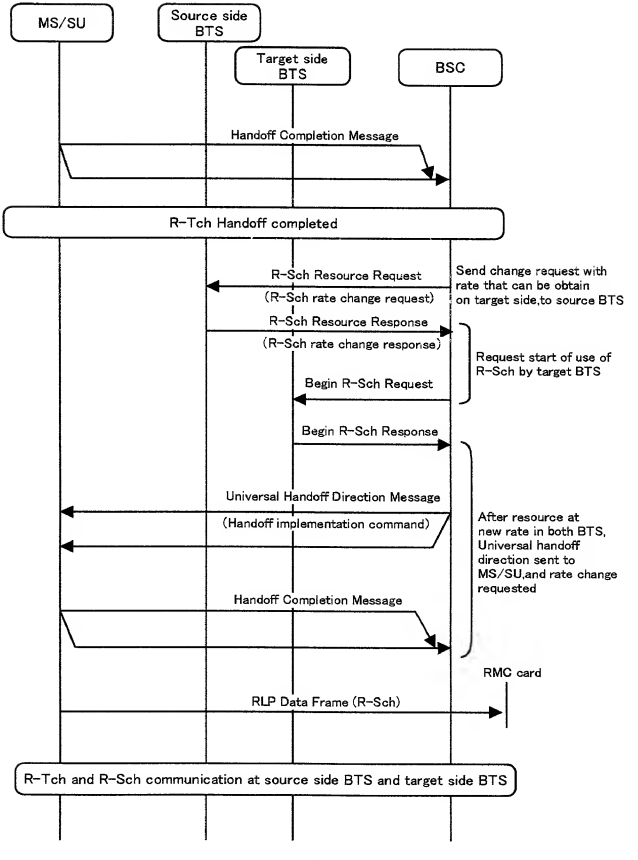

MS/SU
Source side BTS
Target side BTS
BSC
Handoff Completion Message
R-Tch Handoff completed
R-Sch Resource Request
(R-Sch rate change request)
Send change request with rate that can be obtain on target side,to source BTS
R-Sch Resource Response
(R-Sch rate change response)
Request start of use of R-Sch by target BTS
Begin R-Sch Request
Begin R-Sch Response
Universal Handoff Direction Message
(Handoff implementation command)
After resource at new rate in both BTS, Universal handoff direction sent to MS/SU,and rate change requested
Handoff Completion Message
RMC card
RLP Data Frame (R-Sch)
R-Tch and R-Sch communication at source side BTS and target side BTS

FIG. 12

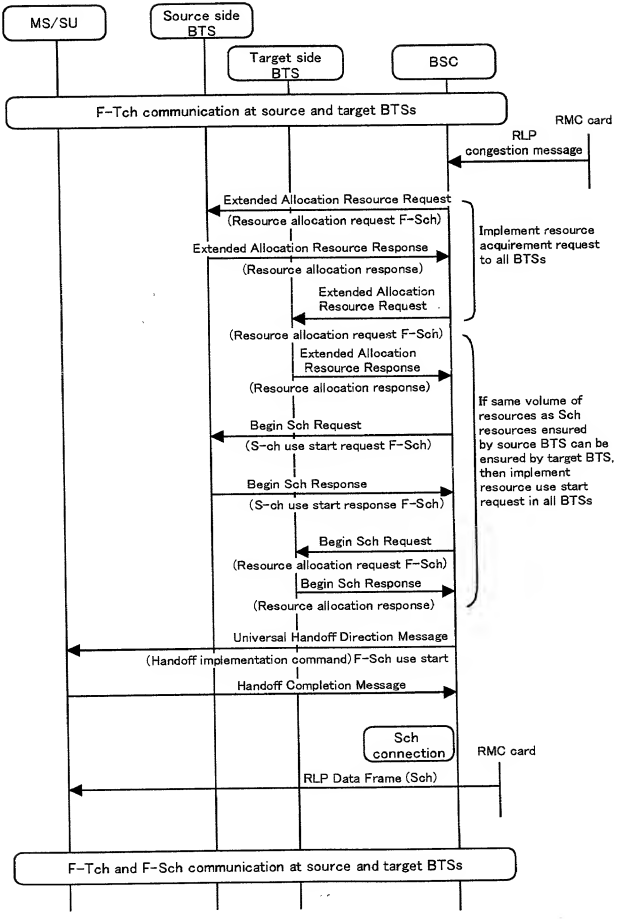

MS/SU
Source side BTS
Target side BTS
BSC
F-Tch communication at source and target BTSs
RMC card
RLP congestion message
Extended Allocation Resource Request
(Resource allocation request F-Sch)
Extended Allocation Resource Response
(Resource allocation response)
Extended Allocation Resource Request
(Resource allocation request F-Sch)
Extended Allocation Resource Response
(Resource allocation response)
Implement resource acquirement request to all BTSs
Begin Sch Request
(S-ch use start request F-Sch)
Begin Sch Response
(S-ch use start response F-Sch)
Begin Sch Request
(Resource allocation request F-Sch)
Begin Sch Response
(Resource allocation response)
If same volume of resources as Sch resources ensured by source BTS can be ensured by target BTS, then implement resource use start request in all BTSs
Universal Handoff Direction Message
(Handoff implementation command) F-Sch use start
Handoff Completion Message
Sch connection
RMC card
RLP Data Frame (Sch)
F-Tch and F-Sch communication at source and target BTSs

FIG. 13

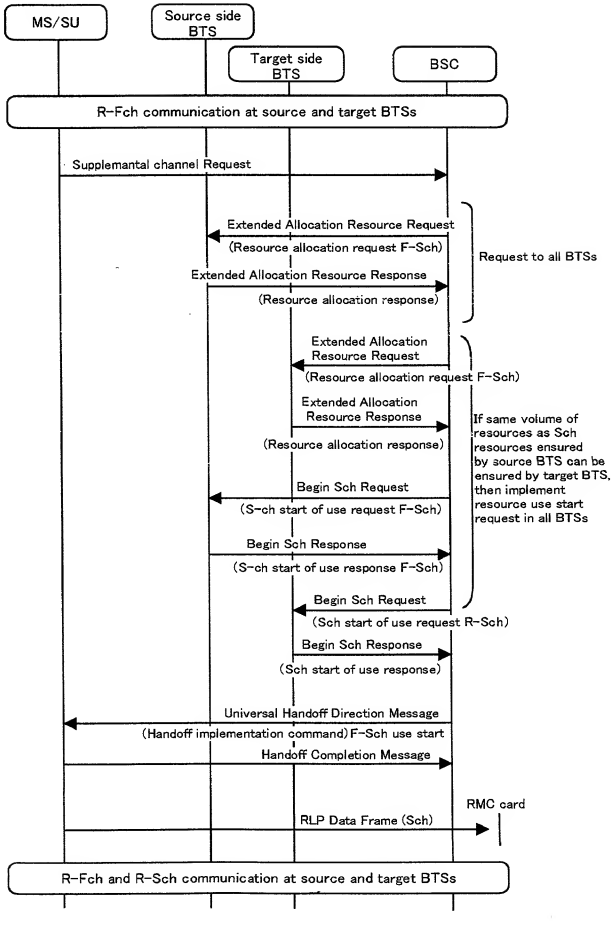
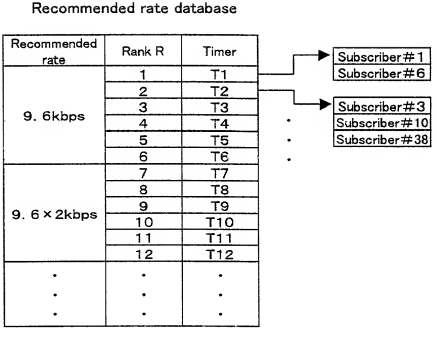

MS/SU
Source side BTS
Target side BTS
BSC
R-Fch communication at source and target BTSs
Supplemantal channel Request
Extended Allocation Resource Request
(Resource allocation request F-Sch)
Extended Allocation Resource Response
(Resource allocation response)
Request to all BTSs
Extended Allocation Resource Request
(Resource allocation request F-Sch)
Extended Allocation Resource Response
(Resource allocation response)
If same volume of resources as Sch resources ensured by source BTS can be ensured by target BTS, then implement resource use start request in all BTSs
Begin Sch Request
(S-ch start of use request F-Sch)
Begin Sch Response
(S-ch start of use response F-Sch)
Begin Sch Request
(Sch start of use request R-Sch)
Begin Sch Response
(Sch start of use response)
Universal Handoff Direction Message
(Handoff implementation command) F-Sch use start
Handoff Completion Message
RMC card
RLP Data Frame (Sch)
R-Fch and R-Sch communication at source and target BTSs

FIG. 14


Recommended rate database
Recommended rate
Rank R
Timer
9. 6kbps
9. 6×2kbps
1
2
3
4
5
6
7
8
9
10
11
12
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
Subscriber#1
Subscriber#6
Subscriber#3
Subscriber#10
Subscriber#38

TD1280 6516660

FIG. 15

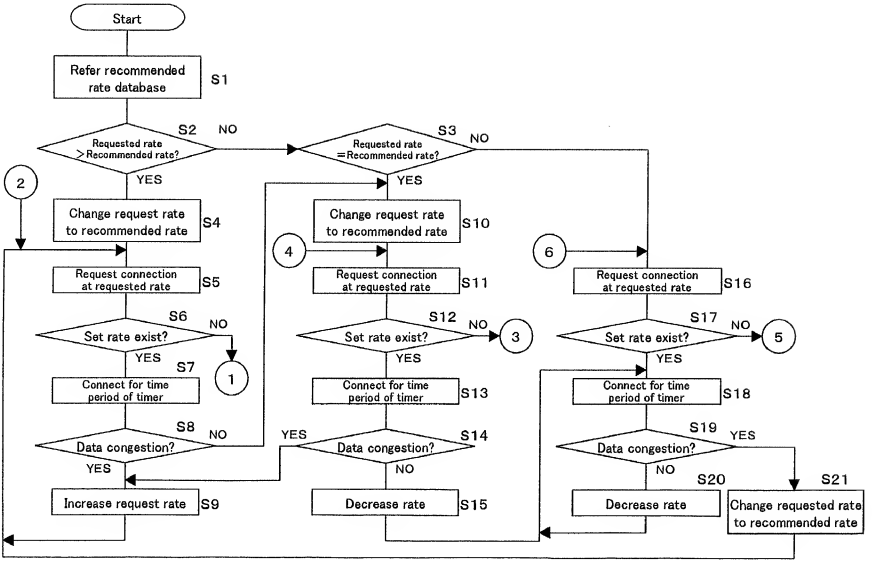
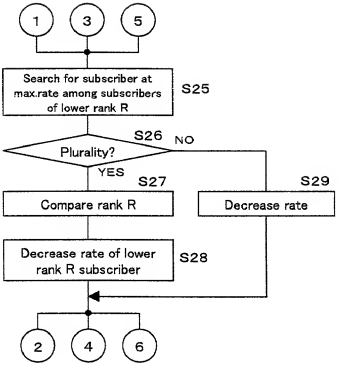


FIG. 16


1
3
5
Search for subscriber at max.rate among subscribers of lower rank R
S25
S26
Plurality?
NO
YES
S27
Compare rank R
S29
Decrease rate
Decrease rate of lower rank R subscriber
S28
2
4
6